

AFIT/GCM/LAC/97S-11

THE INFLUENCE OF FOREIGN CULTURE
ON AIR FORCE
CONTINGENCY CONTRACTING OPERATIONS

THESIS

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THESIS

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Acknowledgments

Long before I began work on this project I convinced myself, using methods not in the least scientific, that those I sought guidance, help, and direction from would greatly influence the degree of pain I encountered. This hypothesis, as it turns out, is the only one I can consider “proven.” For me, a potentially painful process was, for the most part, rather enjoyable. With that said, I must “name names.”

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Christian M. Ruefer

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Abstract

Contingency Contracting Officers (CCOs) are increasingly finding themselves an integral part of overseas deployments, purchasing in theater whatever the combat forces cannot bring with them. As a result, CCOs must deal directly with businesses and the individuals who operate them in the deployed location. Cultural differences between the CCO and suppliers can become an issue not encountered in stateside operations. This thesis was designed to explore the possible impact of culture on the deployed CCO's ability to do their job.

There were four objectives of this study. First, those tasks CCOs must accomplish in order to perform their job were enumerated. Next, a theory of cultural comparison was identified. This theory, proposed by Geert Hofstede, measures culture using four dimensions: Power Distance (PDI), Uncertainty Avoidance (UAI), Individualism (IDV), and Masculinity (MAS). These four dimensions were then applied to each of the CCO tasks. Finally, using data from Hofstede, these dimensionalized tasks were compared to specific scores for Japan, the Gulf Arab States, and Southeastern Europe.

Results of these comparisons suggest that CCOs in all three locations might expect difficulties accomplishing the twelve identified CCO tasks due to attitudes towards superior-subordinate relationships (PDI) and individualism (IDV). In Southeastern Europe, the degree to which people value feminine

versus masculine attitudes may increase the difficulty level as well. In contrast, the low tolerance for ambiguity exhibited by each of the three cultures might be a positive thing for CCOs.

Finally, the results also suggest that to a large degree, the cultural differences CCOs need pay most attention to are those differences between American culture as a whole (as differentiated from USAF contingency contracting) and foreign cultures.

THE INFLUENCE OF FOREIGN CULTURE ON AIR FORCE CONTINGENCY CONTRACTING OPERATIONS

I. Introduction

Chapter Overview

In recent years, American troops have been deployed in support of contingency operations to various points on the globe including Africa, the Caribbean, Central America, the Persian Gulf, and Eastern Europe. With transport space typically reserved for combat troops and their weapons, contingency contracting officers (CCOs) are increasingly finding themselves an integral part of overseas deployments, purchasing in theater whatever the combat forces cannot bring with them (Pagonis, 1992:107). As a result, CCOs must deal directly with businesses and the individuals who operate them in the deployed location. This thesis explores the impact of culture on the deployed CCO's ability to accomplish their jobs.

Contingency Contracting

Air Force contracting falls into two broad categories: systems and operational. At the systems level, contracting specialists focus on the

development, production, and maintenance of weapon systems—aircraft, missiles, radar, communication equipment for instance. Operational contracting on the other hand, typically takes place at the installation or base level—contracting efforts focus on providing commercial type products and services. Everything from office supplies to janitorial services to runway construction is handled by the average base level contracting organization.

Contingency contracting is a specific type of operational contracting. Operational units must always be prepared to support Air Force mission requirements at off-base locations both in the continental United States (exercises, mishaps, emergencies) and in foreign locations like those encountered in Operations Desert Shield and Desert Storm. These operations require on-site contracting expertise. Typically, this support is provided by designated contingency contracting officers, or CCOs. These individuals are often responsible to procure a wide range of services and supplies—everything from billeting and hot meals to construction projects—whatever the Air Force can't or doesn't want to bring along.

Need for Research

Although Air Force contracting personnel have always been responsible for support of contingency operations, these operations were relatively rare overseas before the end of the Cold War. Since that time, however, increased demands for overseas contingency operations have brought more and more

contracting personnel face to face with individuals from a number of foreign cultures. More often than not, despite the amount of technical training these people bring with them, they are not prepared for the impact the foreign culture will have on their ability to perform their duties and assignments. Imagine the frustration of a CCO accustomed to tight schedules and strict performance compliance suddenly thrust into the business world of the Persian Gulf States, where time is seemingly infinite and quality standards often differ from those of U.S. contractors.

From all indications, the Air Force will continue to support contingency operations in foreign locations for some time to come. CCOs must be prepared to deal with the influence of culture at any foreign location. Others have realized the importance of better preparing CCOs for deployments (Tigges and Snyder, 1993) and the cultural impediments to international business (Amadeo, 1991). However, no previous studies have investigated the influence of individual cultures on specified contingency contracting tasks—those elements that make up the CCO's job. This study is intended to demonstrate one possible method for evaluating the influence of foreign cultures on Air Force CCO tasks. To demonstrate this method, the CCO tasks and a theory of cultural comparison are identified first. Then, a method for applying the theory to the tasks is developed and put to use.

Scope and Limitations

Most Air Force contracting activity involving foreign cultures occurs in overseas contingency operations. As a result, the study does not include systems level contracting or stateside contingency operations.

Although all of the services perform some amount of contingency contracting, this study is limited to Air Force contingency contracting. All military branches must adhere to the guidelines of the *Federal Acquisition Regulation*, although each has developed service specific guidance and procedures. While it is reasonable to assume that the operations of Air Force, Army, or Marine CCOs would be influenced in the same ways by the same cultures, the focus of this research lies strictly with cultural influence on Air Force contingency contracting tasks.

As already mentioned, in recent years the services of CCOs have been required across the globe. For this reason, it would be ideal to investigate cultural influences on CCO tasks in every nation or region. Practically, however, an investigation of this size would require more time and data than are currently available. In addition, as this study is largely the presentation of a method for evaluation, including a large number of cultures in the study is unnecessary. For these reasons, this study is limited to two regions and one individual country: (1) the Gulf Arab States, (2) Southeastern Europe (the nations of the former Yugoslavia), and (3) Japan. These areas were selected for a number of reasons. First, data exist for each in the form necessary for the type of

comparison that is proposed. Also, both the Gulf states and the former Yugoslavia are currently the sites of on-going American contingency operations. Finally, Japan was selected as a representative of the Pacific Rim—the site of much international commerce.

Past studies of the influence of culture on international business have sometimes focused on or at least given attention to cultural specific customs and courtesies (Amadeo, 1991:43-51). Although this is a tempting and potentially practical route to take, it is not the intent of this study to identify, evaluate, or otherwise deliberately study culture specific customs and courtesies. Rather, the goal here is to develop a methodology for evaluating the impact of culture on specific task accomplishment in a general sense.

Research Objectives

There are four objectives of this project:

1. Identify the tasks that must be accomplished by CCOs, whatever their location may be, to perform their job.
2. Identify a method for comparing different cultures.
3. Develop a process to apply the method for cultural comparison to the identified CCO tasks and apply that process.
4. Develop a standardized approach for comparing the CCO tasks with the cultures for those regions in the study for the purpose of showing

how the different cultures in the study might influence individual CCO tasks.

Definition of Terms

The following definitions are included: Contingencies are deployments to overseas theaters in response to a crisis or actual declaration of war (Robinson, 1992:1); Contingency Contracting is the purchase of goods and services while deployed in support of a contingency; Contingency Contracting Officer (CCO) is an officer or enlisted contracting specialist deployed for the purpose of supporting a crisis or actual declaration of war (Tigges and Snyder, 1993:7).

Thesis Overview

Chapter Two presents the methods used to identify CCO tasks as well as the resulting tasks themselves. Chapter Three introduces and explains the theory used to compare different cultures. Chapter Four presents a proposed method for applying the theory explained in Chapter Three to the tasks identified in Chapter Two and shows the results of that application. Chapter Five brings together the identified CCO tasks and data from the different cultures in the study—in this chapter a standard approach for comparison is presented for the purpose of showing how the particular cultures of the nations included in this study might influence CCO tasks. Chapter Six presents conclusions regarding the objectives and possible avenues for further research.

II. Contingency Contracting Officer Tasks

Chapter Overview

To understand the influence of culture on the CCO's ability to perform in the field, it is critical to understand exactly what tasks a CCO performs in carrying out their jobs. Following a brief introduction, this chapter presents the methodology used to identify CCO tasks. Next, the resulting identified tasks are presented along with an explanation of each.

Introduction

The CCO must always keep in mind what is to be done to support deployed units: "To purchase the supplies, services, and construction necessary to support the mission of the unit." (Robinson, 1992:2)

This could be the mission statement of virtually every operational contracting unit in the Air Force. At its core, the operational contracting officer's job does not change in the overseas location. What changes is the environment in which that job must be performed. However, to study the influence of culture on this basic mission, the specific tasks necessary to accomplish this mission must be identified.

Methodology

A number of steps were taken to accurately identify CCO tasks. First, a detailed review of applicable USAF contingency and operational contracting publications was accomplished. These publications included:

- *Air Force Federal Acquisition Regulation Supplement Appendix CC—Contingency Operational Contracting Support Program (COCSP)*
- *Wartime Contingency Contracting Handbook Update (AFLMC Report LC922141)*
- *Contingency Contracting Deliberate Planning Handbook (AFLMA Final Report LC943271)*
- *USCENTAF Operational Contracting Guide (AFLMC Guide LC922137)*
- *Contingency Contracting - What to do in an Emergency (AFLMC Report LC912072)*
- *Commander's Guide to Operational Contracting (Update) (AFLMA Final Report LC922176)*

Although the number of contingency operations has proliferated, the volume of specific contingency contracting guidance available, compared with that available for other aspects of contracting, is fairly limited. These publications were selected for their specific emphasis on operational and contingency contracting. The tasks identified in these guides, either specifically or indirectly, along with personal experience as a CCO in Saudi Arabia, were used to develop a preliminary list of CCO tasks (see Table 1).

Table 1
Contingency Contracting Officer Job Tasks (Preliminary)

Task #	Task Description
	Award Related Tasks:
T1	Identify potential sources
T2	Communicate requirements to vendors/contractors
T3	Negotiate price and terms (delivery schedule, delivery method, etc.)
T4	Finalize agreement (execute written document, hand-shake, etc.)
	Administration Related Tasks:
T5	Work with appropriate host nation personnel to establish procedures for installation access
T6	Communicate installation access procedures to contractors
T7	Communicate change orders/contract modifications
T8	Receive supplies
T9	Monitor progress/conduct quality assurance evaluations (services and construction)
T10	Make or arrange for payment
	Contract Close-out:
T11	Communicate termination to contractor

In establishing this list of tasks, two main considerations guided the process. First, would the particular task require the CCO to interact with members of the foreign culture? Only those tasks that required interaction are included. Second, an attempt was made to cover all three phases of the typical contracting cycle—award, administration, and close-out. Award-related tasks are those actions necessary to establish a contractual relationship between two parties (identify a source or sources, negotiate price and terms). Administration tasks are those actions that occur during contract performance designed to ensure the products or services contracted for are delivered (quality assurance monitoring, contract modifications, payment). Contract close-out occurs after

performance has been completed or when the service or product is no longer needed. Deliberate steps are taken to bring the contractual relationship to an end (ensure final payment, communicate contract termination).

Finally, the tasks are written in broad terms as the purpose of listing each is to describe the key elements of the CCO's job for comparative purposes. It is unnecessary and impractical to list every action a CCO might take to carry out the overall task.

The next step in the task identification process was to validate these tasks using subject matter experts (SMEs). The SMEs chosen for this effort were selected from the Graduate Contract Management Section (GCM 97-S). A total of three individuals in the section have contingency contracting experience. These individuals, their specific contingency contracting experiences, and their total contracting experience, are identified in Table 2 below.

Table 2
Subject Matter Experts (SMEs)

SME	Contingency Location	Contingency Duration	Overall Type of Contracting Experience	Total Contracting Experience
SME #1	Saudi Arabia	100 Days	Operational	5 years
SME #2	Saudi Arabia	179 Days	Operational and Systems Administration	7.5 years
SME #3	Haiti	179 Days	Systems Administration	4 years

Each SME was given a copy of the tasks in Table 1. Along with the tasks, these individuals were provided with a list of the sources used for task

identification as well as the considerations used to identify these particular tasks. Next, each SME was asked to evaluate the list for accuracy and completeness based on his own experience with and knowledge of contingency contracting. A copy of the information provided to each SME is included at Appendix A. Each SME was given time to consider these tasks, given the instructions above. Within a few days, a meeting was held to discuss evaluations in a group setting.

Results of SME Evaluations

As a result of SME input, one administration task was added (included as task number 8 in Table 3) and another was modified (task number 8 in Table 1, identified as task number 9 in Table 3). Table 3 incorporates the changes made as a result of SME input. The tasks identified in Table 3 were used throughout the remainder of this project.

Explanation of Tasks

To aid in understanding, a brief explanation of each task is included here:

1. **Identify potential sources.** When contracting in the Continental United States (CONUS), operational contracting offices typically find sources from well-established lists of local vendors developed by the contracting office over the years. Depending on the dollar level of the procurement, sources are also sought through the Commerce Business Daily (CBD)—a sort-of Government want-ad publication. In a contingency environment, a well

Table 3
Contingency Contracting Officer Job Tasks (Final)

Task #	Task Description
Award Related Tasks:	
T1	Identify potential sources
T2	Communicate requirements to vendors/contractors
T3	Negotiate price and terms (delivery schedule, delivery method, etc.)
T4	Finalize agreement (execute written document, hand-shake, etc.)
Administration Related Tasks:	
T5	Work with appropriate host nation personnel to establish procedures for installation access
T6	Communicate installation access procedures to contractors
T7	Communicate change orders/contract modifications
T8	Cultivate relationships with existing sources
T9	Receive/get supplies
T10	Monitor progress/conduct quality assurance evaluations (services and construction)
T11	Make or arrange for payment
Contract Close-out:	
T12	Communicate termination to contractor

established list of local vendors is not likely to exist and the CBD is not used at all. Sources must be identified by the CCO through direct contact with local vendors. This typically means traveling to the nearest population center to identify shops or vendors that carry or can obtain items or services required.

2. **Communicate requirements to vendors/contractors.** A key to any successful relationship, effective communication is essential to any contract action. For the CCO, customer requirements must be understood and then accurately communicated to the vendor or vendors. Unless the vendor

understands the requirement, the CCO's customer is unlikely to get the product or service desired.

3. **Negotiate price and terms.** Fairly self explanatory, this task requires that the CCO come to agreement with the vendor on price, delivery schedule, terms and method of payment.

4. **Finalize agreement.** In CONUS, the term used to describe this task would be contract execution. That is, the involved parties would formally enter into a contract via some sort of document signed by both. In CONUS and especially in contingency operations, oral contracts are legal. However, they are rarely used in CONUS and avoided in contingencies. Regardless of the form used, this task requires that the parties move beyond negotiations to actual agreement usually via a signed contract document.

5. **Work with appropriate host nation personnel to establish procedures for installation access.** While not as important for the delivery of supplies (if necessary, supplies can be delivered to the gate of the installation and be transferred to separate vehicles), installation access for contractors providing services or construction is imperative. Overseas, especially in a contingency environment where hostilities may exist, installation security is of paramount importance. In some instances, as was the case during the Gulf War, American forces operate from already established host nation military installations. These installations often limit access to local vendors or require elaborate procedures for obtaining passes or otherwise gaining access. Unless pass procedures

already exist, the CCO will most likely need to identify those host nation personnel responsible for controlling contractor access, learn what the contractor access procedures are, and implement those procedures.

6. **Communicate installation access procedures to contractors.** Whether or not installation access procedures are immediately known, the CCO will likely need to communicate them to a contractor or contractors eventually. Just as is the case with requirements communication, installation access procedures must be effectively communicated to contractors. Without installation access, important work will likely be delayed.

7. **Communicate change orders/contract modifications.** During the course of contract performance it may be necessary to alter contract requirements. Perhaps the specification has changed or the scope of the effort has grown or shrunk. The contractor must understand any necessary changes.

8. **Cultivate relationships with existing sources.** In some cultures, business relations require on-going attention beyond the general nature of the business transaction. For instance, in Saudi Arabia, business is often conducted in a very social atmosphere. In addition, individuals who conduct business on a regular basis often spend substantial amounts of time together socially. The CCO may be required to socialize with certain contractors in order to maintain a positive relationship.

9. **Receive/get supplies.** Once bargaining is complete and a final agreement has been reached, the supplies themselves must be delivered to the ultimate

customer. In many cases, CCOs might make payment and receive the item or items on the spot, like the average consumer. In other cases, the goods purchased may not be immediately available or may need to be purchased in such large quantities that they must be delivered by the contractor.

10. Monitor progress/conduct quality assurance evaluations (services and construction). For service or construction contracts some level of quality assurance surveillance will be necessary. In CONUS, the contracting office typically oversees a Quality Assurance Evaluation Program where personnel from individual service units (Civil Engineering or Morale Welfare and Recreation for instance) are designated and trained as Quality Assurance Evaluators (QAEs). Day to day contract quality inspection becomes a QAE responsibility. Although some contingency operations may be sufficiently well established to support a QAE Program, many are not, especially in the initial phases of a contingency operation. Often, the CCO will serve as the de-facto QAE. Whether or not a QAE program is established, the CCO will be responsible to establish and/or conduct quality assurance surveillance for all service and construction contracts to answer the basic question: "Is the Air Force getting what it paid for?"

11. Make or arrange for payment. At some point in every contract action, the CCO will need to arrange for payment to the contractor. The timing, method, and form of payment will likely vary. In established locations, contractors might travel to the finance office for payment. In the initial phases of a contingency (or

even in some well established operations), contractors may require cash on delivery or even before delivery. Again, regardless of the method used, the CCO will have to ensure payment to contractors occurs, requiring some level of interaction.

12. Communicate termination to contractor. Any of a number of situations will necessitate contract termination. Perhaps the contractor has failed to perform satisfactorily, or the contingency operation is coming to a close and the services are no longer necessary, or the contractor has completed the contract. Whatever the reason for termination, the CCO will need to interact with the contractor to negotiate any settlement terms, accomplish appropriate paperwork, and arrange for final payment.

Summary

The overarching purpose of this chapter has been to develop the list of CCO tasks. The list of CCO tasks at Table 3 is considered to represent the major tasks necessary for a CCO to perform his job in any contingency environment when interaction with members of a foreign culture is required. The method of cultural comparison described in Chapter III will be applied to each of these tasks.

III. Theory

Chapter Overview

To explore the impact of culture on the CCO tasks identified in chapter II, a basis for cultural comparison is necessary. In this case, a theory of cultural comparison developed by Geert Hofstede is used. Hofstede makes cultural comparisons using four measures he identifies as "dimensions." These dimensions of culture are applied to the tasks included in Table 3.

Following a discussion of culture's origins, this chapter introduces the salient aspects of Hofstede's theory to include a full description of the four dimensions (including examples of how they describe culture). Finally, the scoring scale used for each of the dimensions is briefly discussed.

Origin of Culture

Culture is "the collective programming of the mind which distinguishes the members of one human group from another." (Hofstede, 1980:25)

As Hofstede's theory serves as the vehicle to analyze the possible influence of culture on the identified CCO tasks, it makes sense to work from his definition for the purposes of this research effort. Before that definition can truly be understood however, an explanation of the conceptual origins of this definition is necessary.

In his book, *Culture's Consequences: International Differences in Work-Related Values*, Hofstede explains that :

Social systems can only exist because human behavior is not random, but to some extent predictable.... We assume that each person carries a certain amount of mental programming which is stable over time and leads to the same person showing more or less the same behavior in similar situations. (Hofstede, 1980:14)

He explains that this mental programming—"partly unique, partly shared with others"—can be distinguished at three broad levels: universal, collective, and individual.

The universal level of mental programming, considered "the least unique but most basic" level, includes mental programs "shared by all, or almost all, mankind." Hofstede associates this level with the "biological 'operating system' of the human body" which includes "expressive behaviors such as laughing and weeping and associative and aggressive behaviors which are also found in higher animals."

Collective level mental programming "is shared with some but not all other people; it is common to people belonging to a certain group or category, but different among people belonging to other groups or categories.... It includes the language in which we express ourselves, the deference we show to our elders, the physical distance from other people we maintain in order to feel comfortable, the way we perceive general human activities like eating, making love, or

defecating and the ceremonials surrounding them" (Hofstede, 1980:15). It is at this level of mental programming that culture exists.

Mental programming at the individual level is unique—"no two people are programmed exactly alike, even if they are identical twins raised together." This is the level of individual personality providing for "a wide range of alternative behaviors within the same collective culture" (Hofstede, 1980:16).

These mental programs are either inherited genetically or learned. The universal level is "most likely entirely inherited: It is that part of our genetic information which is common to the entire human species." Programming at the individual level is also at least partly inherited; "it is difficult to explain otherwise the differences in capabilities and temperament between children of the same parents raised in very similar environments. It is at the middle, collective level that most or all of our mental programming is learned, which is shown by the fact that we share it with people who went through the same learning process but who do not have the same genes" (Hofstede, 1980:16).

To study and measure these mental programs, Hofstede employs two "key constructs"—values and culture. He defines a value as "a broad tendency to prefer certain states of affairs over others." Values are considered "an attribute of individuals as well as collectives; culture presupposes a collectivity" (Hofstede, 1980:19). Culture, on the other hand, is defined by Hofstede as "the collective programming of the mind which distinguishes the members of one

human group from another.” Culture itself “includes a system of values; and values are among the building blocks of culture” (Hofstede, 1980:25).

Almost all of our mental programs are influenced by values. As values are foundational to culture, this means our mental programs, almost by default, are influenced by culture as well. However, where personality can be seen to describe an individual, culture describes groups of people, or “collectives” as Hofstede calls them (Hofstede, 1980:25). What this all means for research into cultural similarities and differences is that values are used to compare individuals, whereas the study of culture compares societies (Hofstede, 1980:28).

Stability in Culture Patterns

Culture's Consequences shows similarities and differences among the “cultural patterns” of countries. Many of these patterns have long-established historical roots. Hofstede believes that there must be “mechanisms in society” which bring stability to cultural patterns “across many generations.” He proposes that these mechanisms operate as shown in Figure 1 (Hofstede, 1980: 26-27).

The figure is best explained in Hofstede's own words:

In the center is a system of societal norms, consisting of the value systems (the mental programs) shared by major groups of the population. Their origins are in a variety of ecological factors (in the sense of factors affecting the physical environment). The societal norms have led to the development and pattern maintenance of institutions in society with a particular structure and way of functioning. These include the family, education systems, politics, and legislation [Consequences]. These

institutions, once they have become facts, reinforce the societal norms and the ecological conditions that led to them. In a relatively closed society, such a system will hardly change at all. Institutions may be changed, but this does not necessarily affect the societal norms; and when these remain unchanged, the persistent influence of a majority value system patiently smoothes the new institutions until their structure and functioning is again adapted to the societal norms. (Hofstede, 1980: 26)

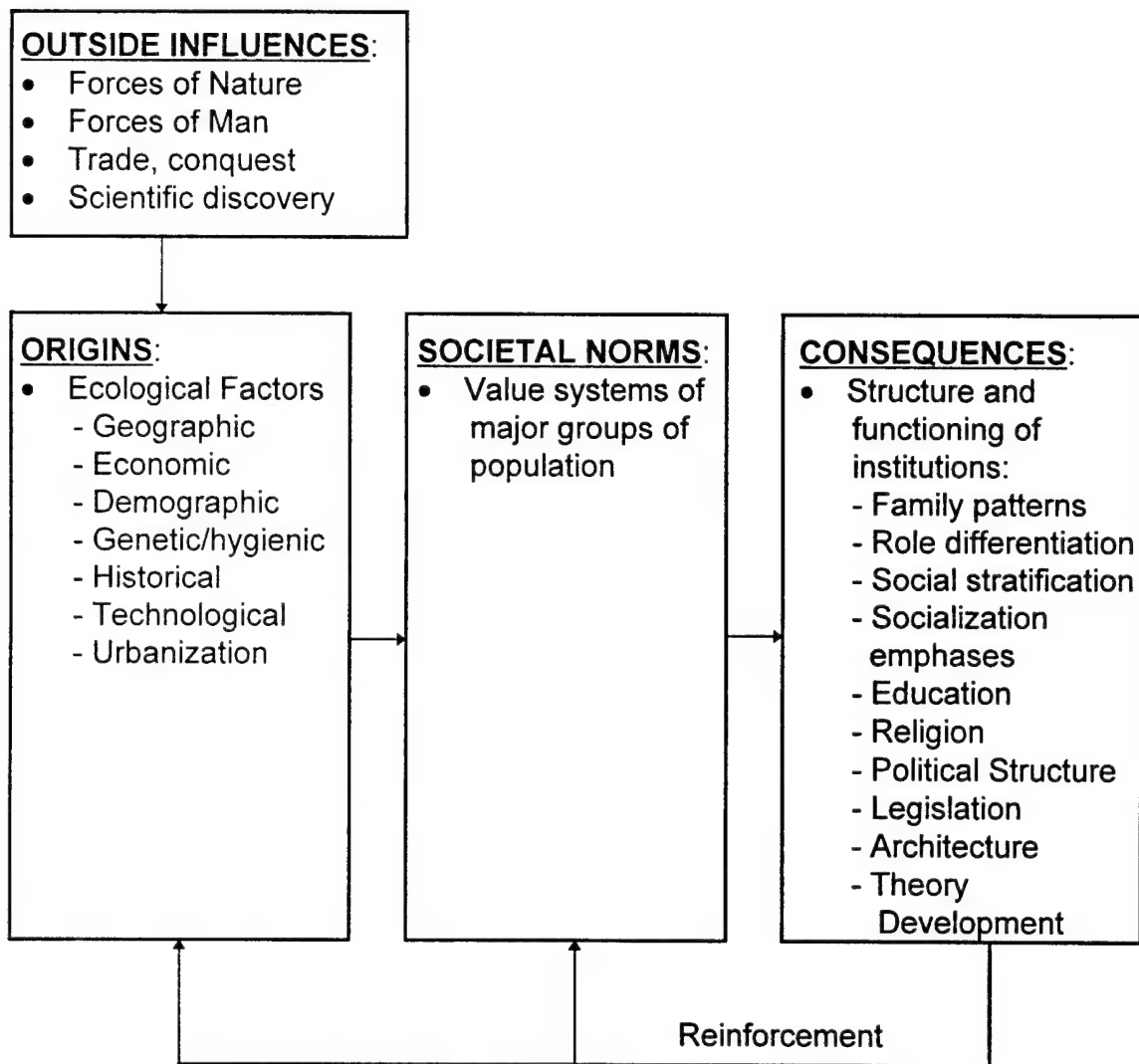


Figure 1
Stabilizing of Culture Patterns

While some readers may find the figure and its explanation interesting, their inclusion here does beg the question of relevancy—how could this information be pertinent to the research at hand? Although the figure and its explanation will become more obviously relevant in the next chapter, they provide a framework for understanding the next essential elements of Hofstede's theory—the four dimensions briefly mentioned earlier. For each of these four dimensions—Power Distance, Uncertainty Avoidance, Individuality, and Masculinity—Hofstede provides lists of qualitative descriptors in all of the three categories shown in Figure 1. These lists of descriptive elements are used to dimensionalize the individual CCO tasks.

Dimensions of Culture

As pointed out by Hofstede, research designed to explore similarities or differences between organizations or groups is extensive. Several basic approaches are typically used, some of which Hofstede finds biased. For example, those who look for similarities—the idea that different organizations or groups are really “brothers under the skin”—look for the general. Those who want to show “that superficially similar organizations are really ‘birds of a different feather’” can typically show this to be the case. According to Hofstede, these types of research designs usually fail to provide unbiased results because they “are concerned with micro-level variables and their relationships, measured *within* societies” (Hofstede, 1980:42). Hofstede avoids this type of bias in his

work by measuring variables at the societal level (Hofstede 1980:43). His method for comparison measures each society as a whole using the same four variables—his four dimensions.

Each country in Hofstede's study (he provides data for 40 countries alone in *Culture's Consequences* and for even more countries in later works) receives a quantitative score for each of the dimensions thereby allowing for comparison. Once each of the CCO tasks is dimensionalized, Hofstede's country scores make it possible to evaluate the relative ease or difficulty with which particular CCO tasks may be accomplished in specific countries or regions. These four dimensions are fully explained below.

Power Distance

The first of Hofstede's dimensions, Power Distance, has at its heart the issue of human inequality. Hofstede explain inequality this way:

Inequality can occur in areas such as prestige, wealth, and power; different societies put different weights on status consistency among these areas. Inside organizations, inequality in power is inevitable and functional. This inequality is usually formalized in hierarchical boss-subordinate relationships...subordinates will try to reduce the power distance from themselves and their bosses and bosses will try to enlarge it. (Hofstede 1980:92)

These inequalities create "human pecking orders" which, according to Hofstede, are a part of the universal level of human mental programming. However, the ways in which "the basic fact of human dominance is worked out in

human social existence...varies from one society to another and from one group to another"—happen at the collective or cultural level (Hofstede, 1980:93).

While no society has ever realized complete equality "in the form of complete inconsistency between different areas of rank," some societies have developed a social structure called "criss-cross" where individuals can belong to different groups within the structure. These individuals form what we know as the middle class. When large enough, this class helps to prevent either extreme from becoming dominant. "Societies with criss-cross structures can be called 'pluralist'; societies without criss-cross...'elitist.'" Pluralist societies are less unequal than elitist societies but still maintain large inequalities.... In pluralist societies new members will be more easily admitted into elites than in elitist societies, because the middle groups in the pluralist society are stepping stones to the top dog ranks" (Hofstede, 1980:95-96).

Within organizations, inequality is necessary to overcome disorder. Typically, power is distributed through some type of formalized hierarchy. Out of these hierarchies the boss-subordinate relationship is formed "which bears resemblance to even more fundamental relationships earlier in life: that of parent and child and of teacher and pupil" (Hofstede, 1980:97).

Based on these ideas, Hofstede uses the concept of Power Distance to "describe meaningfully the relationship between boss B and subordinate S in a hierarchy.... Power Distance is a measure of the interpersonal power or influence between B and S as perceived by the least powerful of the two, S."

Ultimately, Hofstede defines power distance this way: "the power distance between a boss B and a subordinate S in a hierarchy is the difference between the extent to which B can determine the behavior of S and the extent to which S can determine the behavior of B" (Hofstede, 1980:98-99).

Hofstede measures power distance using the Power Distance Index (PDI). In those countries that Hofstede describes as high PDI, "power needs less legitimization than in others" (low PDI). Whereas individuals from high PDI countries are more accepting of differences in power, "in low PDI countries, power is something of which power holders are almost ashamed and which they will try to underplay" (Hofstede, 1980:121).

An example of the two extremes of PDI is evidenced in the differences between the PDI scores of India and the United States. India scores near the top of the list on the PDI scale. The environment that produced this high score is illustrated well by this quote: "a senior Indian executive with a Ph.D. from a prestigious American university: 'What is most important for me and my department is not what I do or achieve for the company, but whether the Master's (i.e., the owner of the firm) favor is bestowed on me.... This I have achieved by saying "yes" to everything the Master says or does.... [T]o contradict him is to look for another job.... I left my freedom of thought in Boston'" (Hofstede, 1980:101). Contrast this quote with a familiar line from the American Declaration of Independence: "all men are created equal." As it

happens, the United States' PDI score is among the bottom half of the 40 nations included in *Culture's Consequences*.

Earlier in this chapter (see "Stability in Culture Patterns" above), the existence of qualitative descriptors of the origins, societal norms, and consequences of culture described by Figure 1 was mentioned. A sampling of these descriptors for Power Distance is included in Table 4. (Hofstede, 1980:122, 124, and 135)

Uncertainty Avoidance

A basic fact of life is that time only goes one way. We are caught in a present which is just an infinitesimal borderline between past and future. We have to live with a future which 'cannot begin' because 'it moves away if we try to approach it,' but which 'serves as a projection screen for (our present) hopes and fears.' In other words, we are living with uncertainty and we are conscious of it. (Hofstede, 1980:154)

Uncertainty, in general, creates anxiety. As a result, society develops coping mechanisms such as law, technology, and religion. Technology has been used to help us defend against the uncertainties of nature; law, "to defend against uncertainties in the behavior of others; religion, to defend against uncertainties we cannot defend ourselves against" (Hofstede, 1980:154).

Hofstede points out that "different societies have adapted to uncertainty in different ways." Methods of adaptation differ not only "between traditional and modern societies, but even among modern societies." Hofstede also provides insight as to the origins of these methods of adaptation:

Table 4
Power Distance Origins, Societal Norms, and Consequences

Origins	
Low PDI	High PDI
<ul style="list-style-type: none"> • More need for technology • Historical events: early legislation applied to rulers; one-son inheritance • Political power based on system of representation • Greater social mobility and strong development of middle class • More questioning of authority in general 	<ul style="list-style-type: none"> • Less need for technology • Historical events: early legislation not applied to rulers; divided inheritance • Political power concentrated in hands of oligarchy or military • Less social mobility and weak development of middle class • Less questioning of authority in general
Societal Norm	
Low PDI	High PDI
<ul style="list-style-type: none"> • Inequality in society should be minimized 	<ul style="list-style-type: none"> • There should be an order of inequality in this world in which everyone has his rightful place; high and low are protected by this order
<ul style="list-style-type: none"> • All should be interdependent 	<ul style="list-style-type: none"> • A few should be independent; most should be dependent
<ul style="list-style-type: none"> • Hierarchy means an inequality of roles, established for convenience 	<ul style="list-style-type: none"> • Hierarchy means existential inequality
<ul style="list-style-type: none"> • Superiors are people like me 	<ul style="list-style-type: none"> • Subordinates consider superiors as being of a different kind
<ul style="list-style-type: none"> • All should have equal rights 	<ul style="list-style-type: none"> • Powerholders are entitled to privileges
Consequences	
Low PDI	High PDI
<ul style="list-style-type: none"> • Pluralist governments based on outcome of majority votes 	<ul style="list-style-type: none"> • Autocratic or oligarchic governments
<ul style="list-style-type: none"> • Tax system aims at redistributing wealth 	<ul style="list-style-type: none"> • Tax system protects the wealthy
<ul style="list-style-type: none"> • Success of religions stressing equality 	<ul style="list-style-type: none"> • Success of religions stressing stratification
<ul style="list-style-type: none"> • Less centralization 	<ul style="list-style-type: none"> • Greater centralization
<ul style="list-style-type: none"> • Smaller proportion of supervisory personnel 	<ul style="list-style-type: none"> • Large proportion of supervisory personnel

Ways of coping with uncertainty belong to the cultural heritage of societies and they are transferred and reinforced through basic institutions like the family, the school and the state. They are reflected in collectively held values of the members of a particular society. Their roots are non-rational, and they may lead to collective behavior in one society which may seem aberrant and incomprehensible to members of other societies. (Hofstede, 1980:154)

Fascism and Nazism may be at least partly explained as a response to the uncertainty brought about by freedom in a society with a low tolerance for ambiguity (Hofstede uses the terms uncertainty and ambiguity as synonyms). The more a culture is intolerant of ambiguity, the greater will be the "tendencies toward rigidity and dogmatism, intolerance of different opinions, traditionalism, superstition, racism, and ethnocentrism."

In organizations, uncertainty caused by the "unpredictable behavior of their members and stakeholders" is reduced by rule setting, regulation, and rituals. Examples of ritualistic behavior include memos and reports, parts of accounting, planning, and control systems, and use of experts (Hofstede, 1980:158-161).

Hofstede measures a society's level of tolerance via the Uncertainty Avoidance Index (UAI) (Hofstede, 1980:155). In general, this index provides a measure of a society's rule orientation, stress level, and employment stability. For instance, Japan, which scores near the top of the UAI scale (meaning Japanese are less tolerant of ambiguity than most), is known for companies that typically hire individuals for life. According to Hofstede's theory, this emphasis on lifetime employment can be viewed as a stress-related coping mechanism—

the fear of unemployment drives the society to establish a standard of lifetime employment (Hofstede, 1980:164). In contrast to a high UAI country like Japan, low UAI societies experience higher rates of labor turnover.

Table 5 provides a qualitative sampling of the origins, societal norms, and consequences of Uncertainty Avoidance (Hofstede, 1980:184-187).

Individualism

The third dimension of national culture is called Individualism. It describes the relationship between the individual and the collectively which prevails in a given society. It is reflected in the way people live together—for example, in nuclear families, extended families or tribes; and it has all kinds of value implications. In some cultures, individualism is seen as a blessing and a source of well-being; in others, it is seen as alienating. (Hofstede, 1980:213)

Hofstede includes humans among what he terms the “gregarious animal” (versus solitary ones like tigers). However, different societies exhibit different levels of gregariousness. The prevailing type of family unit within a society is one way we can see these differences. For example:

very traditional hunting-gathering tribes tend to live in nuclear families. In more complex agricultural societies, people tend to live in extended families, clans, or tribal units. However, as agricultural societies develop toward still more complex urban-industrial societies, family complexity decreases again and extended families disintegrate into nuclear families. (Hofstede, 1980:214)

The individual's relationship to the “collective” in a given society has more to do with the relationship to the extended family, however, it is “intimately linked” with the societal norms (see Figure 1). This means that the individual-

collective relationship affects both “people’s mental programming and the structure and functioning of many other types of institutions besides the family:

Table 5
Uncertainty Avoidance Origins, Societal Norms, and Consequences

Origins	
Low UAI	High UAI
<ul style="list-style-type: none"> Advanced modernization 	<ul style="list-style-type: none"> Beginning of modernization; high rate of change in society
<ul style="list-style-type: none"> Older democracies 	<ul style="list-style-type: none"> Younger democracies
<ul style="list-style-type: none"> Dense populations in poor countries; sparse populations in wealthy countries 	<ul style="list-style-type: none"> Sparse populations in poor countries; dense populations in wealthy ones
<ul style="list-style-type: none"> Historical events: less legislation, more settlement of disputes by negotiation and/or conflict 	<ul style="list-style-type: none"> Historical events: inheritance of developed system of legislation
<ul style="list-style-type: none"> Smaller organizations 	<ul style="list-style-type: none"> Larger organizations
Societal Norm	
Low UAI	High UAI
<ul style="list-style-type: none"> The uncertainty in life is more easily accepted and each day is taken as it comes 	<ul style="list-style-type: none"> The uncertainty in life is felt as a continuous threat that must be fought
<ul style="list-style-type: none"> Ease, lower stress 	<ul style="list-style-type: none"> Higher anxiety and stress
<ul style="list-style-type: none"> Aggressive behavior is frowned upon 	<ul style="list-style-type: none"> Aggressive behavior of self and others is accepted
<ul style="list-style-type: none"> More acceptance of dissent 	<ul style="list-style-type: none"> Strong need for consensus
<ul style="list-style-type: none"> More willingness to take risks in life 	<ul style="list-style-type: none"> Concern for security in life
Consequences	
Low UAI	High UAI
<ul style="list-style-type: none"> Less structuring of activities 	<ul style="list-style-type: none"> More structuring of activities
<ul style="list-style-type: none"> Fewer written rules 	<ul style="list-style-type: none"> More written rules
<ul style="list-style-type: none"> Managers more involved in strategy 	<ul style="list-style-type: none"> Managers more involved in details
<ul style="list-style-type: none"> Managers more willing to make individual and risky decisions 	<ul style="list-style-type: none"> Managers less willing to make individual and risky decisions
<ul style="list-style-type: none"> Higher labor turnover 	<ul style="list-style-type: none"> Lower labor turnover
<ul style="list-style-type: none"> Less ritual behavior 	<ul style="list-style-type: none"> More ritual behavior

educational, religious, political, and utilitarian. The central element in our mental programming involved in this case is our self-concept" (Hofstede, 1980:214-215).

The differences between western and some Asian thinking (Chinese, for instance) are illustrative of the differences with which certain societies view themselves at the individual level. In the United States, "Americans see their own culture as very individualistic; and this individualism is interpreted as a major contributor to the greatness of the United States." On the other hand, to "Mao Tse-tung, individualism is evil" (Hofstede, 1980:215-216).

The degree of individualism within a given society will also influence the relationship of the individual to the organizations to which he belongs. In more collectivist societies like Japan, individuals are more emotionally dependent upon the organizations to which they belong, whereas they are less dependent in the United States (Hofstede, 1980:217).

Hofstede measures individualism using the "Individualism Index." It measures such attitudes as the importance of personal time (high IDV side) versus the importance of being trained by the company (low IDV) (Hofstede, 1980:213). A sampling of the qualitative descriptors for Individualism's origins, societal norms, and consequences are included in Table 6 (Hofstede, 1980:235, 237-239).

Table 6
Origins, Societal Norms, and Consequences of Individualism

Origins	
Low IDV	High IDV
<ul style="list-style-type: none"> • Less economic development • Less social mobility and weak development of the middle class • Survival less dependent on individual initiative • Extended family or tribal structures • Smaller, particularistic organizations 	<ul style="list-style-type: none"> • Greater economic development • Greater social mobility and strong development of the middle class • Survival more dependent on individual initiative • Nuclear family structure • Larger, universalistic organizations
Societal Norm	
Low IDV	High IDV
<ul style="list-style-type: none"> • "We" consciousness • Collectivity-orientation • Identity is based on the social system • Emphasis on belonging to the organization; membership ideal • Belief in group decisions • Value standards differ for ingroups and outgroups; particularism 	<ul style="list-style-type: none"> • "I" consciousness • Self-orientation • Identity is based on the individual • Emphasis on individual initiative and achievement; leadership ideal • Belief in individual decisions • Value standards should apply to all; universalism
Consequences	
Low IDV	High IDV
<ul style="list-style-type: none"> • Community-based social order • Unbalanced power political systems • Less press freedom • Employees expect organization to look after them like a family—can become very alienated if organization dissatisfies them • Policies and practices based on loyalty and a sense of duty • Promotion from inside • Promotion on seniority • Policies and practices vary according to relations (particularism) 	<ul style="list-style-type: none"> • Society-based social order • Balanced power political systems • More press freedom • Organizations are not expected to look after employees from the cradle to the grave • Policies and practices should allow for individual initiative • Promotion from inside and outside • Promotion on market value • Policies and practices apply to all (universalism)

Masculinity

According to Hofstede, "the predominant socialization pattern is for men to be more assertive and for women to be more nurturing." For example, "business organizations have 'masculine' goals and tend to promote men; hospitals have more 'feminine' goals and, at least on the nursing side, tend to promote women" (Hofstede, 1980:261). He goes on to point out that although the only "absolute" differences between men and women are the abilities to "bear" and "beget" children, "every society recognizes many other behaviors as more suitable to females or more suitable to males; however, these represent relatively arbitrary choices, mediated by cultural norms and traditions" (Hofstede, 1980:262). Hofstede's theory makes it possible to explore these differences by use of a fourth dimension he calls Masculinity.

All cultural patterns are "transferred from one generation to the next" through socialization. Again, according to Hofstede, this is no less true for sex role patterns—both men and women "learn their place in society" via socialization, "and once they have learned it, the majority of them *want it that way*" (Hofstede, 1980:265). The Masculinity Index (MAS), used for measuring this dimension of a society's culture, indicates the relative degree of preference a society has for masculine versus feminine values. For Hofstede's dimension, Masculinity "stands for a preference for achievement, heroism, assertiveness, and material success: as opposed to Femininity, which stands for a preference

for relationships, modesty, caring for the weak, and the quality of life” (Hofstede, 1983:337).

For example, “machismo”—“a need for ostentatious manliness”—is typically associated with Latin American countries. Mexico, Venezuela, and Colombia all score high on the Masculinity Index. The Latin American “female counterpart to machismo is ‘Marianismo’: a combination of near-saintliness, submissiveness, and frigidity” (Hofstede, 1980:289). Table 7 provides a sampling of the qualitative descriptors of Masculinity’s origins, societal norms, and consequences (Hofstede, 1980:294-297).

Dimension Scoring

Up to this point, the qualitative aspects of Hofstede’s theory have been emphasized. The descriptors for the origins, norms, and consequences of each dimension presented in Tables 4 through 7 are included to help the reader better understand the theory and see first-hand the kind of information that will be used to apply the theory (dimensionalize) to the individual CCO tasks. Hofstede’s actual country-specific data, however, is empirical. That is, for each country included in his studies, a quantitative score exists for each dimension. Each country is also rank ordered using these scores.

Except for the Uncertainty Avoidance scale which ranges from a lowest score of 8 to a highest of 112, each of the dimensions is scored on a 0 - 100 scale. In each case, the lower the number, the lesser the degree to which the

Table 7
Origins, Societal Norms, and Consequences of Masculinity

Origins	
Low MAS	High MAS
<ul style="list-style-type: none"> • More necessary in colder climates in which more equal partnership of men and women improves chances of survival and population growth 	<ul style="list-style-type: none"> • More easily maintained in warmer climates in which survival and population growth are less dependent on man's intervention with nature; woman can be kept ignorant
<ul style="list-style-type: none"> • More necessary if country is very poor. More easily maintained if country is very wealthy 	<ul style="list-style-type: none"> • Less likely if country is very poor or very wealthy
<ul style="list-style-type: none"> • Stronger position of the mother in the family 	<ul style="list-style-type: none"> • Weaker position of the mother in the family
<ul style="list-style-type: none"> • Both mother and father used as models by boys and girls 	<ul style="list-style-type: none"> • Father used as model by boys; mother by girls
Societal Norm	
Low MAS	High MAS
<ul style="list-style-type: none"> • People orientation 	<ul style="list-style-type: none"> • Money and things
<ul style="list-style-type: none"> • Quality of life and environment are important 	<ul style="list-style-type: none"> • Performance and growth are important
<ul style="list-style-type: none"> • Work to live 	<ul style="list-style-type: none"> • Live to work
<ul style="list-style-type: none"> • Service ideal 	<ul style="list-style-type: none"> • Achievement ideal
<ul style="list-style-type: none"> • Intuition 	<ul style="list-style-type: none"> • Decisiveness
<ul style="list-style-type: none"> • Small and slow are beautiful 	<ul style="list-style-type: none"> • Big and fast are beautiful
<ul style="list-style-type: none"> • Difference in sex roles should not mean differences in power 	<ul style="list-style-type: none"> • Men should dominate in all settings
Consequences	
Low MAS	High MAS
<ul style="list-style-type: none"> • Trying to be better than others is neither socially nor materially rewarded 	<ul style="list-style-type: none"> • There are rewards in the form of wealth or status for the successful achiever
<ul style="list-style-type: none"> • Men and women can both be breadwinners 	<ul style="list-style-type: none"> • Men are breadwinners, women are cakewinners
<ul style="list-style-type: none"> • Less occupational segregation: e.g., male nurses 	<ul style="list-style-type: none"> • Some occupations are considered typically male, others female
<ul style="list-style-type: none"> • Organizations should not interfere with people's private lives 	<ul style="list-style-type: none"> • Organizational interests are a legitimate reason for interfering with people's private lives
<ul style="list-style-type: none"> • Lower job stress 	<ul style="list-style-type: none"> • Higher job stress

particular aspects of that dimension are exhibited by the particular country. For instance, with a Power Distance score of 11, Austria exhibits the least amount of separation in the boss-subordinate relationship. Malaysia, on the other hand, exhibits the greatest separation (Hofstede, 1983b:52).

These scores are used in Chapter IV when the dimensionalized tasks are compared to the scores for the countries included in this effort. These comparisons provide insight into the degree of difficulty a CCO will experience in attempts to accomplish the particular tasks.

IV. Theory Applied to Contingency Contracting Officer Tasks

Chapter Introduction

This chapter brings together the CCO tasks identified in Chapter II and Hofstede's theory described in Chapter III. The country-task comparison described in Chapter V is dependent on the application of theory accomplished here.

This chapter is divided into three sections: (1) the task-theory application methodology is described, (2) the results of the task-theory application process are presented in a tabular format, and (3) the logic used to determine dimension scores for each of the CCO tasks is explained.

Methodology

Instrumental in this project is the identification and use of a theory application methodology. This section provides the background and logic behind the methodology selected. Each subsection below provides information vital to understanding the chosen method of application.

Tasks and Culture

Hofstede's theory suggests that values—the "tendency to prefer certain states of affairs over others"—are at the root of individual and cultural behavior. As illustrated by Figure 1, group value systems, which have their origins in

ecological factors (geographic, economic, historical, technological), largely determine the functioning of basic societal institutions (family patterns, social stratification, political structure, legislation). People in a given society exhibit the influences of culture by the ways they think and act—from greetings to attitudes toward male/female relationships to business dealings.

Tasks on the other hand, unlike people, cannot think and act. All tasks, processes, and procedures are designed by people to operate *within* a particular cultural context—that of the designers (whether or not this is done consciously or not). The tasks listed at Table 3 are no different. The CCO tasks identified in this research are the product of a number of different cultures (American, American federal contracting, and USAF contracting at a minimum) and are designed to operate within those cultures. This means that the tasks identified are not necessarily high or low on each dimension but are more readily accomplished *within* a particular cultural context. Instead of asking, “Is Task 1 high or low on the PDI scale?” we should ask, “Does Task 1 depend on high or low PDI to be *successfully accomplished*?” For instance, in Hofstede’s research, Japan scores high on the uncertainty avoidance index, implying that the Japanese culture, in general, has a low tolerance for ambiguity (as reflected in attitudes towards lifetime employment already mentioned). On the other hand, Task 2, requirements communication (see Table 3), cannot be said to have a low or high tolerance for ambiguity as it is a process. However, the task may very

well be more easily accomplished in an environment less tolerant of ambiguity. It is from this perspective that the CCO tasks from Table 3 are dimensionalized.

Use of Cultural Dimension's Qualitative Descriptors

The specific dimension scores for individual countries determined by Hofstede are the result of empirical data gathering. Survey data was statistically processed and analyzed to produce specific, quantitative measures for each dimension for each country along the scales already discussed in Chapter 3. For example, the United States' scores for the four dimensions are as follows: PDI - 40 (0-100 scale), UAI - 46 (8-112 scale), IDV - 91 (0-100 scale), and MAS - 62 (0-100 scale) (Hofstede, 1983:342).

Although perhaps feasible, a quantitative approach to the task dimensionalizing process is judged impractical for the purposes of this research. The goal of this project is to present a working model for determining the possible influence of specific cultures on the CCO's ability to perform his job—this is possible without taking an empirical approach. Also, in light of the fact that the tasks themselves must operate within a particular cultural environment and do not exhibit specific cultural traits (as discussed above), it is reasonable to consider a non-quantitative approach. Hofstede's qualitative descriptors—developed to help describe the “general societal norm” behind the low and high dimension scores—provide that alternate method (Hofstede, 1980:120).

The process used to dimensionalize the individual tasks is a fairly simple one. Based on: 1) my own experience and knowledge as a contracting officer in both the stateside and contingency contracting environments, 2) first-hand experience with each of the CCO tasks, and 3) Hofstede's qualitative descriptors, I subjectively dimensionalize each task. That is, for each task and for each dimension, I ask the same basic question: Does this task depend on an environment that exhibits a high or low level of this particular dimension to be successfully accomplished?

Task Scoring

As discussed previously, each dimension for each country or region in Hofstede's studies receives a numerical measure or score. Using these scores, countries can also be ranked from lowest to highest or vice versa. Because Hofstede has generated an integer score for each country, it is possible to divide each set of scores into halves, thirds, quarters, or more to identify high, moderate, or low ranges (basically, an almost infinite number of scoring ranges can be created). For the purposes of this study, however, tasks are rated only high, low, or not applicable (N/A). Again, the goal is not numerical exactness but general descriptiveness. Using a subjective scoring process to determine individual CCO tasks as either high or low on the individual dimension scales (for example, Task 1 might be considered more easily accomplished in a high PDI environment thereby earning Task 1 a score of "high" for the PDI dimension) is

consistent with this goal. Attempting to score a task as moderate or medium presents unnecessary difficulties and, in my estimation, is unreasonable. I come to this conclusion for two reasons. First, Hofstede's dimensional descriptors are presented only in terms of high and low—there is no moderate or medium range. A list of medium descriptors of each dimension would have to be somehow inferred or developed. Second, using a subjective scoring process such as this, it is reasonable to ask whether or not a particular task requires, in general, a lower or higher power distance (or uncertainty avoiding, etc.) environment to be accomplished successfully. It would be more difficult, however, to make a reasonable argument for determining a task as moderate along any of the dimensions.

The N/A designation is assigned to a task only if none of the descriptors for the particular dimension is judged to apply. A detailed description of the logic behind every score is included under the Explanation section.

Subject Matter Expert Review

In the same way that Subject Matter Experts were used to add accuracy and credibility to the list of CCO tasks at Table 3, SMEs were also involved at this point in the project. Each SME was provided a copy of the tasks, a copy of Chapter III, and a preliminary copy of this chapter. Each was asked to review and comment on the accuracy of the scoring (see Appendix B for a copy of the instructions to SMEs). The logic behind this approach is the same as that at

Chapter II—to increase validity by using experts in the field of contracting.

Armed with an understanding of Hofstede's theory, familiarization with the tasks they helped to validate, and their own experience as CCOs, the SMEs assessed the task scoring process in an effort to raise the credibility of the model.

Table 8 is the preliminary (pre-SME review) list of dimensionalized tasks.

Table 9 is the final (post-SME review) list of dimensionalized tasks. Only the MAS score for Task 8 (shown in bold and italics) changed.

Task-Theory Application Results

Table 8
CCO Task Dimension Scores (Preliminary)

Tasks	PDI	UAI	IDV	MAS
1 - ID Potential Sources	Low	High	High	N/A
2 - Communicate Requirements	Low	High	High	N/A
3 - Negotiate	Low	Low	High	High
4 - Finalize Agreement	Low	High	High	N/A
5 - Installation Access Procedures	Low	High	High	N/A
6 - Communicate Access Procedures	Low	High	High	N/A
7 - Communicate Changes	Low	High	High	N/A
8 - Cultivate Relationships	Low	Low	High	High
9 - Receive/Get Supplies	Low	High	High	High
10 - Monitor Progress (Quality Assurance)	Low	High	High	High
11 - Make or Arrange Payment	Low	High	High	N/A
12 - Communicate Termination	Low	High	High	N/A

Task Scoring Explanation

This section presents the reasoning behind each dimension score for every task identified in Table 8 and modified in Table 9.

Table 9
CCO Task Dimension Scores (Final)

Tasks	PDI	UAI	IDV	MAS
1 - ID Potential Sources	Low	High	High	N/A
2 - Communicate Requirements	Low	High	High	N/A
3 - Negotiate	Low	Low	High	High
4 - Finalize Agreement	Low	High	High	N/A
5 - Installation Access Procedures	Low	High	High	N/A
6 - Communicate Access Procedures	Low	High	High	N/A
7 - Communicate Changes	Low	High	High	N/A
8 - Cultivate Relationships	Low	Low	High	Low
9 - Receive/Get Supplies	Low	High	High	High
10 - Monitor Progress (Quality Assurance)	Low	High	High	High
11 - Make or Arrange Payment	Low	High	High	N/A
12 - Communicate Termination	Low	High	High	N/A

Task 1: *Identify potential sources*

PDI: At its heart, PDI has to do with the distribution of power and superior-subordinate relationships. Among the societal norms of a high PDI society are a latent conflict between the powerful and the powerless, the idea that subordinates are considered of another kind by superiors, and a lack of trust between people with different levels of power. The opposite of these is true for low PDI—harmony, equality, and trust.

Although the CCO scouting for sources has still to establish a business relationship with any vendors or contractors contacted, he is likely to viewed as a potential customer and boss. Open and honest two way communication, which might be hampered in an environment of hostility or mistrust, is essential for this

task to be successfully accomplished. This task is best suited for a low PDI environment.

UAI: High uncertainty-avoiding societies want to limit ambiguity. A major component of any contractual arrangement is certainty of terms—specificity and clarity versus ambiguity. The search for sources is dependent upon unambiguous communication as well. The CCO needs to know if the necessary service or supply is actually available from the contractor.

IDV: In highly individualistic societies, policies and practices are applicable to all—universalism (versus particularism where relationships and status determine to whom and how rules apply). Again, although the CCO has typically not entered into a contract during the source identification process, he is establishing relationships (communication) and laying the foundations of future business dealings.

MAS: At its core, the masculinity index measures a society's preference for masculine values over feminine ones. None of the descriptors of high or low masculinity levels can be reasonably argued to apply to this task. Although more masculine societies may be more accepting of male CCOs (as is the case in Saudi Arabia), it is doubtful that the task itself is more easily accomplished in one environment as opposed to another.

Task 2: *Communicate requirements to vendors/contractors*

PDI: This task scores low on the PDI scale for largely the same reasons as Task 1. Once the CCO has identified a source or sources and intends to

enter into a contract, it is essential that open and honest two way communication occur. First, the contractor must feel comfortable enough to approach the CCO (or be approached). Also, the contractor must feel comfortable suggesting alternatives the CCO doesn't know exist or doesn't understand may be better solutions given local conditions. This task is most successfully accomplished in an environment characterized by harmony and trust.

UAI: Contract requirements—the end product or service desired—must be communicated to potential suppliers in clear and unambiguous terms. Ambiguity can lead to all kinds of trouble in a contractual relationship. In addition, high uncertainty societies are characterized by the need for written rules and regulations and a belief in expert knowledge—two values held in high regard in U.S. government contracting.

IDV: Contracting procedures depend upon standard and often regimented application (universalism). When a CCO communicates contract requirements, it is important that the contractor understands that every requirement communicated is expected to be provided, every time and to every customer (i.e., individual base or wing customers at the deployed location). The high IDV norm is also characterized by the right to an opinion. As specific as the CCO may need to be in requirement communication, they must have contractors willing to speak up when the communicated requirement or approach is unworkable or fraught with risk.

MAS: The successful performance of this task is no more dependent on a high or low MAS environment than Task 1 and for the same reasons.

Task 3: *Negotiate price and terms (delivery schedule, delivery method, etc.)*

PDI: Although some seasoned negotiators might enjoy and take advantage of an environment where they are viewed as the superior with special status and privileges (a high PDI norm), negotiation depends on open two-way communication as well. In addition, low PDI societies stress interdependence versus independence. It would be difficult for a CCO to negotiate with an individual who view themselves as independent or in need of nothing from the CCO. Finally, organizations within high PDI societies tend to have a greater number of management levels with larger proportions of supervisory personnel. This could make it difficult to find the right individual with authority to negotiate.

UAI: While several of Hofstede's descriptors for the high UAI norm can be used to make an argument for a high ranking of this task, the stronger argument can be made for the opposite. While the high side norms of aggressive behavior and showing of emotions can be positive in the negotiation environment, on the whole a number of low side descriptors characterize the *most* positive environment for this CCO task (at least as performed by American CCOs!). Most notable are the ideas of risk taking (low UAI societies are more willing to take risks), the containment of conflict and competition to a level of fair play where they can be used constructively, and a looser attitude towards rules

(they should not be constraining—in negotiations, the ability to put anything on the table for consideration is beneficial).

IDV: This task is scored high on the IDV scale based on two of the high side societal norms—an “I” versus “We” consciousness and a belief in individual decisions. Of prime concern to any CCO is whether or not the party negotiated with has the authority or ability to make an agreement. The entire process is much more difficult if superiors must be consulted or must agree to the terms before a bargain can be struck. Environments that foster individual initiative, responsibility, and decision making make the successful accomplishment of this task more likely.

MAS: Unlike most of the other tasks where MAS is considered not applicable, the high side MAS norms of achievement, decisiveness, independence, and a desire to be the best make a reasonable argument for a high MAS scoring of this task.

Task 4: *Finalize agreement (execute written document, hand-shake, etc.)*

PDI: Once a contractor has been located that can fulfill the given requirement and the negotiation has been completed, the agreement must be formalized in some fashion. USAF CCOs prefer some sort of written document (perhaps a single page in the case of a supply item and up to a sizable document for services or construction). Although oral contracts are acceptable in contingency situations, they are to be avoided. Due to the fact that CCOs will prefer to obtain written agreements even in countries where oral contracts

prevail, this task is scored low on the power distance scale. In a low power distance culture, "people at various power levels feel less threatened and more prepared to trust people" (Hofstede, 1980:122). Also, greater overall harmony tends to exist between people at different power levels. These attitudes serve to facilitate an environment where a written document can be used to codify an agreement.

UAI: One of the main purposes served by written contracts is to dispel uncertainty and ambiguity. In fact, one of the essential elements of a contract is certainty of terms. A high uncertainty avoiding environment lends itself well to the successful accomplishment of this task.

IDV: Just as in the case for negotiations, contract execution (agreement finalization) is dependent on the ability of each party to enter into an agreement. High IDV societies value autonomy, individual initiative and opinion, and a belief in individual decisions. Task four is likely to be most easily accomplished in a high IDV culture.

MAS: Task 4 does not lend itself well to the MAS dimension.

Task 5: *Work with appropriate host nation personnel to establish procedures for installation access*

PDI: As PDI has everything to do with equality, so do the establishment and application of installation access procedures. CCOs in post-Gulf War Saudi Arabia discovered that almost nothing was as irritating, disrupting, or potentially time consuming as a contractor who was denied access to the installation. As

often as not, contractor personnel given access just the day before were denied the next. Experience soon provided the answer—individuals of certain nationalities were almost automatically denied access even if passes provided by the Saudis themselves were evident (a large proportion of Saudi workers are foreign nationals). Individuals from certain nations were viewed as security threats simply on the basis of their country of origin. Often these individuals were treated harshly and without dignity by low ranking Saudi gate guards. To ensure services or supplies purchased can be delivered to the installation, an environment stressing equality (and that extends to the application of rules and regulations)—a characteristic of low PDI—is best.

UAI: Installation access procedures need to be unambiguous. A CCO needs to know exactly what access rules are to successfully implement them. As a matter of fact, some consequences of uncertainty avoidance are more structured activities, more written rules, and standardization. For these reasons, UAI for this task is rated high.

IDV: In high IDV societies, policies and practices apply to all—universalism. Ideally, access procedures should apply to all in the same way in order for the CCO to know with reasonable certainty that contractors will be allowed installation access.

MAS: None of the norms or consequences of the MAS dimension is considered applicable to this task. The establishment of installation access

procedures does not appear to be more easily accomplished in either a more masculine or feminine value stressing society.

Task 6: *Communicate installation access procedures to contractors*

PDI: As is the case with previous tasks requiring communication, a low PDI environment is most likely to facilitate the type of two-way communication necessary for meaningful interaction.

UAI: Ambiguity between the CCO and the contractor is as potentially hazardous as it is between the CCO and any host nation personnel responsible for the rules.

IDV: The logic behind the high IDV score of Task 5 applies here as well.

MAS: See Task 5 MAS score reasoning above.

Task 7: *Communicate change orders/contract modifications*

The dimension scores for task 7 are exactly the same as those for Task 2 for exactly the same reasons. Communicating the requirements of a contract change require the same conditions as those for contract formation.

Task 8: *Cultivate relationships with existing sources*

Similarity-attraction theory, a well-established principle in social psychology, states that people are attracted to others whom are perceived as being similar to themselves. The more people share similar beliefs and attitudes the more highly they think of each other. In general, people tend to like other people with whom they share a majority of views and values. (Kirby, Kirby, and Lyon, 1996:52)

Cultivating or building relationships can be considered a basic activity of all human beings. Whether or not we are particularly good at it is very individual

specific. Herein lies one of the basic problems with the successful accomplishment of this task under *any* cultural condition. However, for the purposes of this effort, equal relationship building skills among all CCOs is assumed. In addition, the task is scored assuming all USAF CCOs are products of the American culture and will therefore identify with and “like” people from similar cultures. For these reasons, the scores from Hofstede’s research for the United States were originally applied to this task across the board. Due to the fact that the original scores in Hofstede’s theory are numerical, the high or low designation is derived from the USA score ranking—a score in the top 50% of all countries in the study is considered high while the opposite is true for a score in the lower 50%.

However, each of the SMEs scored this task as low on the MAS scale based on the qualitative descriptors of low MAS. In particular, the following descriptors of low MAS were cited: people orientation versus money and things; interdependence versus independence; nurturing versus assertiveness; service versus achievement. In light of this analysis, the MAS score for Task 8 was changed to low on the finalized list. While it still makes sense that people tend to be attracted more readily to people like themselves (in keeping with similarity-attraction theory), a simple across-the-board application of the U.S. scores to this task is inappropriate. Ultimately, it was judged that based on the descriptors from Hofstede’s theory, relationships would likely be more easily cultivated in a low MAS environment.

Task 9: *Receive/get supplies*

PDI, UAI, & IDV: As explained in Chapter 2, in the case of supplies (versus services or construction), unless the CCO actually takes possession of the goods on the spot, contractor delivery must occur. At a minimum, the contractor must understand where and when to make delivery. In some cases, such as with late delivery or defective items, the CCO might need to follow-up with the contractor. Regardless of the reason, communication is at the heart of this task as well. The contractor and CCO must see one another as approachable and understand the delivery particulars the same way. In the case of on-going or regular deliveries, a standard approach is also best. For these reasons, the first three dimensions are scored as seen in the table.

MAS: Task 9 might be more easily accomplished in a high MAS society due to the cultural norms of aggressiveness and decisiveness—once the items are purchased, no one wants to wait for them.

Task 10: *Monitor progress/conduct quality assurance evaluations (services and construction)*

Although service and construction contracts are generally of a long term or on-going nature, receipt of quality services or construction products are dependent upon the same environmental factors as the receipt of supplies. As a result it is scored the same way as Task 9.

Task 11: *Make or arrange for payment*

Again, the abilities to communicate and avoid ambiguity are paramount. Also, CCOs will seek to standardize payment procedures and apply them universally. A more masculine or feminine environment is not judged to be influential in carrying out this task.

Task 12: *Communicate termination to contractor*

The same basic reasoning behind the other communication-dependent tasks applies to this task as well—low PDI to more readily facilitate two-way communication, high UAI for uncertainty avoidance, and high IDV for universal application of regulations and procedures. The MAS level of the society is not judged to be a factor for this task (based on Hofstede's descriptors).

General Comments

The most obvious and perhaps most telling aspect of the task scoring results are their relative uniformity. First, all tasks scored low on the PDI scale and high on the IDV scale. Hofstede found a general tendency for these two scores to be negatively correlated in certain circumstances. That is, in many cases, a low PDI scoring country will score high on the IDV scale and vice versa (*Hofstede, 1984:391*). As it happens, the United States scores the same on these two scales.

Second, although eight of the twelve tasks were determined N/A on the MAS scale, of the four that were scored, three rank the same as the United

States—high. Only Task 8, already mentioned above, scored low (and opposite of the U.S.)

Third, only two of the tasks (3 and 8) score the same on the UAI scale as the U.S.. The remaining ten tasks all score exactly opposite from the United States. Although this might seem odd at first, it is logical. USAF contracting is a highly regulated and rule-oriented field (characteristics of a high UAI culture). That most of the tasks scored exactly opposite from U.S. culture as a whole is not a coincidence. The regulations and rules are designed to provide an environment free from ambiguity. In a perfect world, the procedures members of a USAF contracting organization in California use to purchase lumber will be exactly the same as the procedures used by members of a USAF contracting organization in Virginia. Those procedures will be clearly defined and repetitively applied.

This aspect of government contracting is also a source of great irritation to those unaccustomed to USAF contracting procedures (and to many very accustomed to them). Perhaps this irritation is a result of the fact that the USAF contracting environment is opposite that of the U.S. population as a whole in terms of tolerance for ambiguity (UAI). Interestingly, the two tasks that do score low (negotiation and relationship cultivation) are somewhat less regulated by USAF contracting regulations in terms of specific procedures. This may help to explain why they are scored the way they are. Perhaps the absence of strict procedural guidelines means that these two tasks are more likely to be

successfully accomplished in a UAI environment more closely resembling that of the U.S. as a whole.

V. Task-Country Comparison

Chapter Overview

In this chapter, the CCO tasks identified in Chapter II and dimensionalized in Chapter IV are brought together with individual country data for the purpose of evaluating the impact of specific cultures on those tasks. First, the chapter presents specific country scores from Hofstede's research for the two regions and one country included in this study (the Gulf Arab States, Southeastern Europe, and Japan). Next, using comparative matrices, the dimensionalized tasks from Chapter IV are combined with the country scores. The possible inferences that can be made from the comparison are presented.

Region and Country Dimension Scores

As discussed in Chapter I, the number of specific countries (or cultural regions) presented for comparison in this study is limited. One of the reasons the specific countries used in this study were selected is the simple fact that data exist in Hofstede's research. That is, discrete dimension scores for each are available. The data used here are from "*Dimensions of National Cultures in Fifty Countries and Three Regions*," an article written by Hofstede in 1983.

Due to the fact that Hofstede's scores are numerical, it would be possible to categorize each country or region score in terms of high, medium, or low scores (or along any number of other categories). This technique could be

implemented by dividing the individual dimension scoring scales into halves, thirds, fourths, or any other units. Individual countries or regions could then be categorized according to where their individual scores fell on the dimension scoring scales. However, to be consistent with the task scoring technique (high and low scores only) and for general ease of comparison, the scores for each region or country from Hofstede's data are presented in a similar fashion. This is accomplished by dividing each dimension scoring range (0 - 100 or 8 - 112) into two halves. Scores falling in the lower half are considered low and those in the upper half are considered high. As a narrative for each task-country comparison follows the comparative matrix, dimension scores for particular countries that fall close to the middle of the range are taken into account and the possible implications discussed.

Table 10 presents the scores for each country and for each dimension using the scoring method described.

Table 10
Dimension Scores for Two Regions and One Country

Region/Country	PDI	UAI	IDV	MAS
Gulf Arab States (1)	High	High	Low	High
Southeastern Europe (2)	High	High	Low	Low
Japan	High	High	Low	High

Note 1: includes Egypt, Lebanon, Lybia, Kuwait, Iraq, Saudi-Arabia, and the United Arab Emirates

Note 2: includes the nations of the former Yugoslavia

Task-Country Comparison

Table 11
Task-Country Comparison (Gulf Arab States)

Region & Tasks	PDI	UAI	IDV	MAS
<i>Gulf Arab States</i>	<i>High</i>	<i>High</i>	<i>Low</i>	<i>High</i>
1 - ID Potential Sources	L	H	H	-
2 - Communicate Reqmnts.	L	H	H	-
3 - Negotiate	L	L	H	H
4 - Finalize Agreement	L	H	H	-
5 - Access Procedures	L	H	H	-
6 - Comm. Access Proced.	L	H	H	-
7 - Communicate Changes	L	H	H	-
8 - Cultivate Relationships	L	L	H	L
9 - Receive/Get Supplies	L	H	H	H
10 - Monitor Progress (QA)	L	H	H	H
11 - Make/Arrange Paymnt.	L	H	H	-
12 - Comm. Termination	L	H	H	-

Table 12
Task-Country Comparison (Southeastern Europe)

Region & Tasks	PDI	UAI	IDV	MAS
<i>Southeastern Europe</i>	<i>High</i>	<i>High</i>	<i>Low</i>	<i>Low</i>
1 - ID Potential Sources	L	H	H	-
2 - Communicate Reqmnts.	L	H	H	-
3 - Negotiate	L	L	H	H
4 - Finalize Agreement	L	H	H	-
5 - Access Procedures	L	H	H	-
6 - Comm. Access Proced.	L	H	H	-
7 - Communicate Changes	L	H	H	-
8 - Cultivate Relationships	L	L	H	L
9 - Receive/Get Supplies	L	H	H	H
10 - Monitor Progress (QA)	L	H	H	H
11 - Make/Arrange Paymnt.	L	H	H	-
12 - Comm. Termination	L	H	H	-

Table 13
Task-Country Comparison (Japan)

Country & Tasks	PDI	UAI	IDV	MAS
<i>Japan</i>	<i>High</i>	<i>High</i>	<i>Low</i>	<i>High</i>
1 - ID Potential Sources	L	H	H	-
2 - Communicate Reqmnts.	L	H	H	-
3 - Negotiate	L	L	H	H
4 - Finalize Agreement	L	H	H	-
5 - Access Procedures	L	H	H	-
6 - Comm. Access Proced.	L	H	H	-
7 - Communicate Changes	L	H	H	-
8 - Cultivate Relationships	L	L	H	L
9 - Receive/Get Supplies	L	H	H	H
10 - Monitor Progress (QA)	L	H	H	H
11 - Make/Arrange Paymnt.	L	H	H	-
12 - Comm. Termination	L	H	H	-

Possible Implications for CCOs

Tables 11, 12, and 13 graphically bring together the dimensionalized tasks from Table 9 and the country and region scores from Table 10. From these tables, the possible implications for CCOs operating in the regions studied are analyzed.

Reading the Tables

The task-country comparisons are presented visually in Tables 11-13. Each matrix is configured with the country or region scores at the top (outlined by a double line). Each CCO task and its corresponding dimension scores follow. Where the task scores differ from the region or country scores, the task score is in bold and the cell is shaded. This method of highlighting the individual scores

shows, for instance, that for each culture included in the study, the task scores for PDI and IDV are exactly opposite. Also, the Task 3 and 8 UAI scores are exactly opposite as well. Finally, for the Gulf States and Japan, the Task MAS scores are the same except for Task 8; for Southeastern Europe, the MAS scores are exactly opposite except for Task 8.

Implications for CCOs in the Gulf Arab States

Based on the results found in Table 11, a CCO deployed to the Gulf States might expect some difficulty in performance of all tasks related to the effects of high PDI and low IDV. In the case of PDI, this might mean less willingness on the part of contractors to communicate crucial information. Perhaps the CCO has asked for something beyond the contractor's abilities or understanding, but the contractor is uncomfortable pointing out any faults in the request. As a matter of fact, I encountered this type of problem in my own experience as a CCO in Saudi Arabia.

The low IDV score could indicate problems relating to a particularistic application of rules and policies (versus universal application). That is, in the Gulf States, some contractors might enjoy more favorable operating conditions simply because of who they are or who they know (a particularistic application of the rules). My experience with the Saudi base access passes for contractors seems to verify this. Some contractors seemed to enjoy nearly uninhibited access to the base while others continually encountered trouble (one group of

workers was actually denied authority to *exit* the base and was forced to sleep overnight in the very trailers they were working on).

Unfortunately, differences between theory and reality are evident in at least one way for this region (and perhaps two). The Gulf States score high on the UAI scale as do all but two of the tasks. This might lead a CCO to believe that business operators in the Gulf avoid ambiguity therefore creating, at least in part, a more receptive contingency contracting environment. In my own Saudi Arabian experience however, Saudi social relationships are highly structured and governed by the written rules of Islam, while business relationships are not so regulated. Specificity and attention to detail in contract performance were not always the case.

The Gulf State's MAS scores indicate that CCOs might encounter less difficulty performing Tasks 3, 9, and 10 (which score high on the MAS scale). For instance, the high MAS norms of achievement, decisiveness, aggressiveness, and independence might be regarded as benefits in regard to successful accomplishment of Tasks 3, 9, and 10. *However*, the theory might be lacking in this respect as well. I must speak again from my own experience. Whereas Saudi men appear to place little value on women as individuals, they exhibit many feminine characteristics in their relations to one another. For example, it is common for Saudi men to kiss one another or to walk hand-in-hand in public. Saudi men also exhibit some of the norms for low masculinity levels such as a people orientation and the "work to live" attitude (versus "live to

work"). This apparent inconsistency in Hofstede's scores might be explained by the fact that his data comes from the business environment and not necessarily a social one. In Saudi Arabia, women are not likely to play a large part in business, but the men who conduct it might exhibit generally lower MAS behavior. Interestingly, the Gulf States MAS score was 53—almost dead center—perhaps helping to explain the apparent weakness in the model presented. On the positive side, the cultivation of relationships (Task 8) might very well be more easily accomplished in the Gulf States (despite the "high" score) based on the types of low MAS characteristics already mentioned. As a matter of fact, Saudis should probably be considered experts at the art of relationship building judging by the type of treatment I received.

Implications for CCOs in Southeastern Europe

The PDI, UAI, and IDV scores for Southeastern Europe fall on the same end of the spectrum as those for the Gulf States (although the Southeastern European scores, based on Hofstede's data, are significantly more extreme for UAI and IDV than those for the Gulf States). Without personal experience to test these results against, the model suggests that the PDI and IDV characteristics of the region's culture might be detrimental to task accomplishment. Perhaps attitudes towards the superior subordinate relationship would hinder open two-way communication. Low IDV scores would suggest the problems inherent with an environment where the rules are inconsistently applied.

The high UAI scores, on the other hand, indicate the region's low tolerance for ambiguity. Perhaps this attitude would manifest itself positively in contract-related matters, making the CCOs job a bit less difficult.

The MAS score for Southeastern Europe is opposite that of the Gulf States. According to Hofstede's data, the region scores very low (only 21 on a 0-100 scale) on the MAS Index, indicating a stronger preference for feminine values. This would appear to be good news for CCOs attempting to cultivate relationships but not-so-good news for negotiations (Task 3), receiving/getting supplies (Task 9), or performing Quality Assurance work (Task 10).

Implications for CCOs in Japan

The index scores for Japan translate into the same high and low rankings as those for the Gulf States. However, for two of the measures the actual numerical scores are much more extreme. The Japanese PDI and IDV scores are very close to the middle of the scale (54 and 46 respectively on 0-100 scales) while the UAI and MAS scores come in near the top of the chart (92 UAI and 95 MAS with a UAI scale from 8-112 and an MAS scale from 0-100).

For a CCO operating in Japan (or a culture similar to it), the possible difficulties arising from high PDI and low IDV environments (already mentioned) might very well apply here as well. It must be remembered, however, that with the scores so close to the middle of the scale, the actual environment

encountered might be less extreme than the norms for those dimensions would indicate.

The high UAI and MAS scores might be positive for the CCO (except for Tasks 3 and 8), assuming that Japanese culture is accurately described by the norms for high UAI and MAS cultures. A desire on the part of Japanese business operators to avoid ambiguity in the contractual relationship could serve to fill requirements more accurately. The high MAS characteristics of achievement and decisiveness might mean, for instance, that CCOs could expect higher levels of Quality Assurance (Task 10).

A Final Look at the Model

Table 14
An Abbreviated Comparison of Scores Including U.S. Dimension Scores

	PDI	UAI	IDV	MAS
USA	L	L	H	H
USAF Contracting	L	H (1)	H	H (2)
Gulf States	H	H	L	H
SE Europe	H	H	L	L
Japan	H	H	L	H

Note 1: 10 of the 12 tasks (83%) scored high

Note 2: 3 of the 4 tasks (75%) scored high

For the purpose of making some final comments regarding the method of comparison proposed, Table 14 combines all of the data previously included in Tables 11-13 (albeit in abbreviated form) with the dimension scores for the United States. This abbreviated approach brings together the dimension scores

for each of the cultures included in this study, for those of the US, and for all of the CCO tasks.

To simplify comparison, individual CCO tasks are combined under the single term USAF Contracting—only one score for each dimension is provided. For PDI and IDV scores, this was a simple task as each of the CCO tasks is scored the same for those dimensions (see Table 9). For UAI and MAS scores, an overall score was based on the preponderance of task scores. For instance, although Task 8 is rated low on the MAS scale, the remaining tasks are ranked high thereby earning an overall high MAS score for USAF contracting (see notes at Table 14).

The comparisons made possible by this table suggest that, culturally, USAF contracting differs from that of the US in terms of tolerance for ambiguity only. The implication is that except for UAI, simple national cultural differences between the United States and that of the contingency location are the most meaningful ones. For UAI scores on the other hand, CCOs need only remember that cultures scoring exactly opposite from the US are likely to be most hospitable to CCO tasks. For example, let's say that a CCO is planning for a deployment to Bosnia. Interested in the possible impact of cultural differences, the CCO gleans data from *Culture's Consequences*. Knowing that all the tasks to be performed are most easily accomplished in a cultural environment similar to the United States (except where UAI is concerned), the CCO can see that the PDI, IDV, and MAS norms of Bosnia might make job performance more difficult.

The possible implications of that increased difficulty can then be researched more specifically.

VI. Conclusion

Chapter Overview

The four objectives of this project were identified in Chapter I. This chapter evaluates the extent to which those objectives were met, possible avenues of further research, and includes concluding remarks.

Objective One

Chapter II was designed to accomplish this first objective—"identify the tasks that must be accomplished by CCOs, whatever their location may be, in order to perform their job." Using a number of contingency related publications and calling on my own experience as a contingency contracting officer as well the experiences of three other former CCOs, the list of tasks at Table 3 was developed. Each of the tasks included requires interaction with individuals outside the USAF (foreign nationals in the case of an overseas deployment) and encompasses a major aspect of the CCOs job.

The task list summarizes each major area of the contracting cycle (award, administration, and close-out) in a relatively brief list, helping to facilitate the task-theory application in Chapter IV, and the region/country comparison conducted in Chapter V. This short list also makes possible a relatively uncomplicated avenue for insight into the general influence of culture on CCO

job performance. Finally, without the identification of these tasks, the remaining objectives could not have been accomplished.

Objective Two

The increased number of overseas contingency operations has coincided relatively conveniently with an increased interest in culture. Although *Culture's Consequences* was first published almost 25 years ago, it and other works by Hofstede based on the same theory are frequently cited in other culture-related works of more recent years. The entire thrust of Hofstede's work is cultural comparison through a systematic analysis of similarities and differences, making it an ideal candidate for the fulfillment of objective two: "identify a method for comparing different cultures." The combination of the quantitative and qualitative aspects of Hofstede's work made it a useful tool for the research conducted here.

Objective Three

Although Hofstede's work is based largely on empirical evidence gathered via questionnaires, the qualitative descriptors of each of the four dimensions made it possible to apply the theory to the identified CCO tasks (objective three).

Objective Four

The quantitative data provided by Hofstede made comparison of the dimensionalized tasks to the cultures (regions and country) included in the study relatively simple once the tasks were scored themselves. The matrices provide a simple visual tool for viewing the possible impact of specific cultures on the CCO tasks—objective four.

Opportunities for Further Research

The model proposed in this project provides a relatively uncomplicated method for making assessments regarding the impact of foreign culture on the deployed CCO. However, the model was built in a series of steps—each dependent upon the others. These steps, represented by the four research objectives, provide further opportunities for research.

Objective One

Any research effort aimed at identifying cultural influences on contingency contracting efforts will require that the specific activities of contingency contracting be somehow identified. The method used here combines official USAF training materials on the subject with the experience of actual CCOs to form what should be considered a relatively accurate list. However, based on the high volume of contingency contracting conducted in the past few years, a

large number of contingency contracting experts exists who, if called upon, might very well increase the accuracy and completeness of the list.

Objective Two

While Hofstede's theory provides a convenient tool for this study, it is unclear as to whether or not it is the best tool. A comprehensive study of all theories or models used for cultural comparison might provide a more appropriate method for the type of comparison accomplished here.

Objective Three

The qualitative descriptors used to apply the theory to the tasks made the application process possible. The use of Subject Matter Experts may have helped to move the process toward objectivity. However, further research into this aspect of the study could be useful. First, the basic question must be answered of whether or not a theory developed to compare people (cultures) can also be applied to tasks. If so, can qualitative descriptors like Hofstede's be used to rate the tasks? Second, the application process itself needs refinement. Does the use of SMEs enhance reliability and validity of the task scores? Should a greater number be used? How can bias be controlled for? Should an empirical approach be used? Should the task rating scale be expanded beyond the high and low designations? Should a number score be somehow derived for each dimension for all tasks?

Objective Four

While the matrices may provide general insight into the impact a specific culture might have on particular CCO tasks, it is uncertain that the insight provided is an accurate reflection of what the CCO will actually encounter. For instance, is a high UAI score actually reflective of an environment intent on eliminating all types of ambiguities (including those relating to business dealings and contracts) or simply in a reflection of religious or other, non-business related cultural norms? Also, is the method of reducing individual country and region dimension scores into either high or low too restrictive or otherwise inappropriate? And finally, the number of cultures included could be expanded. This might mean the need to gather data and build scores for countries not included in Hofstede's data in order to provide contingency planners and CCOs cultural insight into new contingency locations.

Conclusion

On only my second night as a CCO in Saudi Arabia, I (along with the entire contracting office) was invited to dinner by an officer of the Royal Saudi Air Force. With the Islamic holy month of Rhamadan in full swing, this dinner turned out to be a catered feast held in a complex of large tents some distance into the desert. Guests and host smoked, talked, sang, ate, and drank tea late into the night. Personal and business relationships were "cultivated" that evening.

As a brand new CCO, I felt my hands were full simply learning the basics of the job. As it turned out, the cultural influences I encountered on that tour, exemplified by the events of this second evening in the country, were much more difficult to understand.

Lest my experience be considered the exception and not the rule, consider a more recent example of the increasingly international nature of the US military mission. A letter dated 11 Aug 1997 was recently circulated to civilians at Wright-Patterson Air Force Base. The first sentence of paragraph one reads: "The deployment of civilians in support of military operations and special events is increasing." Introducing a search for DoD employees with foreign language skills, the letter specifically lists almost 350 languages and language dialects (O'Hara). Apparently, it is quite possible that not only military but civilian DoD employees might experience the same kinds of cultural encounters that I did.

The United States military is increasingly an international force involved at the micro-level. Planners at all levels must consider how cultural factors might influence day-to-day operations—especially where US troops will be on the ground for lengthy periods. Despite the possible inadequacies of this particular model or Hofstede's theory, the type of model proposed here and the kind of analyses it makes possible will become increasingly useful.

Appendix A: Subject Matter Expert Review of CCO Tasks

Dear Subject Matter Expert:

Thanks again for agreeing to help with my thesis. The whole effort hinges on two essential elements. This information is being provided to you in order to accomplish the first of those two elements. Before I get into the details of this exercise, I want to provide you with a brief outline of what I'm doing.

The overall purpose of my thesis is to propose a method of investigating the influence of culture on the specific tasks a contingency contracting officer (CCO) must perform to do his job. My ultimate goal is to develop a tool that CCOs and contingency planners can use to better understand how the cultural environment of a given contingency location might influence the ability to accomplish the contracting mission. In order to do this I have four specific research objectives. They are:

1. Identify the tasks that must be accomplished by CCOs, whatever their location may be, in order to perform their job.
2. Identify a method for comparing different cultures.
3. Develop a process to apply the method for cultural comparison to the identified CCO tasks and apply that process.
4. Develop a standardized approach for comparing the CCO tasks with the cultures for those regions in the study for the purpose of showing how the different cultures in the study might influence individual CCO tasks

The two essential elements I spoke of are described by objectives one and three. It's with these objectives that I need your help. The information contained in the remainder of this document is designed to help *you* help *me* accomplish objective one.

The following is a preliminary list of CCO tasks identified by me:

Task #	Task Description
	Award Related Tasks:
T1	Identify potential sources
T2	Communicate requirements to vendors/contractors
T3	Negotiate price and terms (delivery schedule, delivery method, etc.)
T4	Finalize agreement (execute written document, hand-shake, etc.)
	Administration Related Tasks:
T5	Work with appropriate host nation personnel to establish procedures for installation access
T6	Communicate installation access procedures to contractors
T7	Communicate change orders/contract modifications
T8	Receive supplies
T9	Monitor progress/conduct quality assurance evaluations (services and construction)
T10	Make or arrange for payment
	Contract Close-out:
T11	Communicate termination to contractor

This list was developed based on my own experience with and knowledge of contingency contracting. In addition, I reviewed a number of resources which include the following:

- *Air Force Federal Acquisition Regulation Supplement Appendix CC—Contingency Operational Contracting Support Program (COCSP)*
- *Wartime Contingency Contracting Handbook Update (AFLMC Report LC922141)*
- *Contingency Contracting Deliberate Planning Handbook (AFLMA Final Report LC943271)*
- *USCENTAF Operational Contracting Guide (AFLMC Guide LC922137)*
- *Contingency Contracting - What to do in an Emergency (AFLMC Report LC912072)*
- *Commander's Guide to Operational Contracting (Update) (AFLMA Final Report LC922176)*

As I developed the list I was guided by two main considerations. First, only those tasks that required the CCO to interact with members of the foreign culture would be included. Second, an attempt was made to cover all three phases of the typical contracting cycle—award, administration, and close-out.

The tasks were written in broad terms as the purpose of listing each is to describe the key elements of the CCO's job for comparative purposes. It is

unnecessary and impractical to list every action a CCO might take to carry out the overall task.

Armed with this information, I'd like you to review the list provided with a critical eye. Please use the same logic that I have (tasks requiring interaction with foreign culture and all three phases of the contracting cycle). It may help to ask the following questions as you make your review:

- Does this task really require contact with the foreign culture?
- Should this task be written another way? Is this task too broad? Too narrow?
- Is anything missing--should additional tasks be added?

I've asked you to help me because of your background in contracting as well as your contingency experience. Call on that background and experience as you review these tasks.

Please take time to look over the tasks before our 7 May meeting (Room 108 at 0800). We'll use that time to discuss your input.

Thanks,

Chris Ruefer

Appendix B: Subject Matter Expert Review of Task Scoring

Dear Subject Matter Expert:

In early May you helped me to accomplish the first of the two essential elements of my thesis. In the letter I gave to you then, I outlined the overall purpose and objectives of my thesis. To help refresh your memory, I've included them here as well:

"The overall purpose of my thesis is to propose a method of investigating the influence of culture on the specific tasks a contingency contracting officer (CCO) must perform to do his job. My ultimate goal is to develop a tool that CCOs and contingency planners can use to better understand how the cultural environment of a given contingency location might influence the ability to accomplish the contracting mission. In order to do this I have four specific research objectives. They are:

1. Identify the tasks that must be accomplished by CCOs, whatever their location may be, in order to perform their job.
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4. Develop a standardized approach for comparing the CCO tasks with the cultures for those regions in the study for the purpose of showing how the different cultures in the study might influence individual CCO tasks"

The two essential elements I spoke of are described by objectives one and three. The work you did earlier helped me to accomplish objective one. The results of that work are included in the attached table. Now I need your help with objective three.

Essentially, my thesis presents one possible way to gauge the impact of culture on CCO tasks. To do this, I've applied a theory of cultural comparison (developed by a researcher by the name of Geert Hofstede) to the CCO tasks you helped me to develop in the table below. The results of this comparison are contained in the draft of my thesis chapter four.

This time you can help me by reading the results of my task-theory application with a critical eye. Before you can do this though, you'll need to read the draft of my thesis chapter three (which presents and explains Hofstede's theory) and understand the methodology I used to apply the theory to my tasks (chapter four). Once you've read and understood the theory and the methodology I used,

I need you to critique my work. That is, using the same information I did, I'd like you to assess the accuracy of my work based on your own contingency and contracting expertise (I've attached some essential information from Hofstede's theory to help you do this). The logic behind the results I got myself are also included in my chapter four draft.

Understand this is a very subjective process. My intent is not exactness but only reasonability—I'll leave exactness to future researchers.

In order to make most effective use of your time and knowledge, I think it best that we use the following process:

1. Read my draft chapters 3 and 4 (attached).
2. Meet as a group where I can answer any questions you might have.
3. Conduct your individual critiques (results can be kept informally, i.e., notes in the margins, your head, etc.)
4. Meet again as a group to discuss your results.

If at all possible, I'd like to complete the process in one week. I'll contact you shortly to schedule meeting times and locations.

Thanks,

Chris Ruefer

4 Attachments:

1. Table of Contingency Contracting Officer Tasks
2. Draft thesis chapter 3
3. Draft thesis chapter 4
4. Copies of Hofstede's dimension descriptors

Bibliography

- Amadeo, Captain Anthony L. Cultural Dimensions of International Business. MS Thesis, AFIT/GCM/LSY/91S-1. School of Systems and Logistics, Air Force Institute of Technology (AU), Wright-Patterson AFB OH, September 1991 (AD-A243917).
- Hofstede, Geert. Culture's Consequences, International Differences in Work-Related Values. Beverly Hills and London: Sage Publications, 1980.
- Hofstede, Geert. "The Cultural Relativity of the Quality of Life Concept," Academy of Management Review, Vol. 9: No. 3: 389-398 (1984).
- Hofstede, Geert. "Dimensions of National Cultures in Fifty Countries and Three Regions," In J. B. Deregowski, S. Dziurawiec, & R. C. Annis (Editors). Explanations in Cross-Cultural Psychology. Lisse, The Netherlands: Swets and Zeitlinger, 1983.
- Kirby, Kirby, and Lyon. "The Impact of Cultural Differences Between the United States and Mexico: Do Birds of a Feather Flock Together?" Journal of Business and Management: 51-61 (Winter 1996).
- O'Hara, Michael B. Chief, Civilian Personnel Division. Letter to civilian employees at Wright-Patterson AFB OH, 11 August 1997.
- Pagonis, William G. Moving Mountains, Lessons in Leadership and Logistics from the Gulf War. Boston: Harvard Business School Press, 1992.
- Robinson, Tom. Wartime Contingency Contracting Handbook Update. Air Force Logistics Management Center, Gunter AFB AL, June 1992.
- Snyder, Captain Tom J. and Captain Jon B. Tigges. A Study of Air Force Theater-Based Contingency Contracting Training Requirements for a Power Projection Strategy. MS thesis, AFIT/GCM/LAS/93S-10. School of Logistics and Acquisition Management, Air Force Institute of Technology (AU), Wright-Patterson AFB OH, September 1993 (AD-A275906).

Vita

Captain Christian M. Ruefer was born on August 26th, 1966 in Washington, DC. Growing up in northern Virginia, he graduated from Oakton High School in 1984. Four years later he graduated from Virginia Tech with a Bachelor of Arts degree in History and Political Science. Shortly after graduation he entered Air Force Officer Training School at Lakeland AFB receiving his commission on November 22nd, 1988.

After only a few months of navigation training at Mather AFB, CA, the Air Force decided Chris was better suited to the contracting career-field. Chris married the former Marybeth Wooten on May 27th, 1989 enroute to his first acquisition assignment at Wright-Patterson AFB. He served in both the Aeronautical Equipment and C-17 system program offices at Wright-Patterson before being assigned to the Air Combat Command Contracting Squadron at Langley AFB, VA. At Langley, Chris served as a contract administrator and then as a branch chief/contracting officer for the award and administration of both airborne radar surveillance and aircrew training contracts. It was while at Langley that he served at Dhahran, Saudi Arabia as the Director of Contracting for Operation Southern Watch from February to June 1993. Chris entered AFIT in May 1996 and will be assigned to Hanscom AFB following graduation.

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Contingency Contracting Officers (CCOs) are increasingly finding themselves an integral part of overseas deployments, purchasing in theater whatever the combat forces cannot bring with them. Cultural differences between the CCO and suppliers in the deployed location can become an issue not encountered in stateside operations. This thesis was designed to explore the possible impact of culture on the deployed CCO.

There were four objectives of this study. First, those tasks CCOs must accomplish in order to perform their job were identified. Next, a theory of cultural comparison was identified. This theory, proposed by Geert Hofstede, measures culture using four dimensions: Power Distance (PDI), Uncertainty Avoidance (UAI), Individualism (IDV), and Masculinity (MAS). These four dimensions were then applied to each of the CCO tasks. Finally, using data from Hofstede, these dimensionalized tasks were compared to specific scores for Japan, the Gulf Arab States, and Southeastern Europe.

Results of these comparisons suggest that CCOs in all three locations might expect difficulties accomplishing the twelve tasks due to attitudes towards superior-subordinate relationships (PDI) and individualism. In contrast, the low tolerance for ambiguity exhibited by each of the three cultures might be a positive thing for CCOs.

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AFIT RESEARCH ASSESSMENT

The purpose of this questionnaire is to determine the potential for current and future applications of AFIT thesis research. **Please return completed questionnaire** to: AIR FORCE INSTITUTE OF TECHNOLOGY/LAC, 2950 P STREET, WRIGHT-PATTERSON AFB OH 45433-7765. Your response is **important**. Thank you.

1. Did this research contribute to a current research project? a. Yes b. No

2. Do you believe this research topic is significant enough that it would have been researched (or contracted) by your organization or another agency if AFIT had not researched it?
a. Yes b. No

3. **Please estimate** what this research would have cost in terms of manpower and dollars if it had been accomplished under contract or if it had been done in-house.

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4. Whether or not you were able to establish an equivalent value for this research (in Question 3), what is your estimate of its significance?
a. Highly Significant b. Significant c. Slightly Significant d. Of No Significance

5. Comments (Please feel free to use a separate sheet for more detailed answers and include it with this form):

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